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**PROGRAMMING MANDATE TO CEN, CENELEC AND ETSI ON PROTECTIVE TEXTILES
AND PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT**

1. SCOPE

This mandate concerns the development of a programme for standardisation deliverables in the area of protective textiles and personal protective clothing and equipment, including revision of existing European standards and other standardisation deliverables as appropriate.

2. JUSTIFICATION

2.1. Political context

As a response to the Competitiveness Council, the European Commission launched the Communication on a lead market initiative (LMI)¹ at the end of 2007. This Communication identified a first set of markets with potential to become lead markets and proposed action plans for urgent and coordinated action in each area. Protective textiles - technical textiles for intelligent personal protective clothing and personal protective equipment (PPE²) - were one of the lead markets areas identified in the Communication.

As described in the task force report “Accelerating the development of the protective textiles market in Europe”, the concept of protective textiles is closely linked to PPE, as defined in Directive 89/686/EEC. However, protective textiles encompass a wider range of products and uses than the legal definition. In the LMI context, protective textiles cover technical textiles for intelligent³ personal protective clothing and equipment, comprising clothing and other often textile-based systems and accessories whose main function is to protect the user. These products are used for professional workers,

¹ COM (2007) 860 final, Brussels 21.12.2007

² All references to PPE in this document are not restricted to the legal definition given in Article 1 of Directive 89/686/EEC but refer to a broader concept, encompassing a wide range of products and uses.

³ CEN/TR 16298:2011 may provide a definition of intelligent textiles

emergency services, defence personnel or healthcare professionals exposed to hazardous environments, extreme climatic conditions or chemical and bacterial contamination.⁴

The action plan for protective textiles, which envisaged coordinated action in the areas of legislation, standardisation, public procurement and complementary activities, has been implemented since 2008 delivering positive results. A recent independent evaluation⁵ highlighted especially stakeholder engagement, mobilisation of resources and first promising steps in public procurement.

A number of R&D projects in this area as well as the ENPROTEX public procurement network have identified standardisation as a key instrument for further uptake of innovative advances in public and private markets. Thus, it is now necessary to further strengthen the innovation potential of this market, ensuring continuity and lasting impact of the lead market initiative beyond the initial action plan. Building upon the results of the LMI action plan, the present mandate, which covers a wide variety of technical textile-based goods, shall take into account standardisation work of relevance to EU legislation, in particular related to PPE.

2.2. Rationale

For over 20 years, European standards have played a crucial role supporting the implementation of EU legislation on PPE; namely as regards Directive 89/686/EEC on PPE. In addition, standards play a crucial role to facilitate the development and market deployment of new technologies applicable in this field.

On the other hand, funding for R&D in the area of smart protection systems has led to substantial technological progress, including in the area of pre-normative research, which still needs to be fully exploited commercially.

Thus, in order to fill in those gaps, standardisation needs to build upon recent technological developments in this field and integrate user-driven design into innovative solutions in the area of protective textiles, clothing and equipment. Furthermore, sustainability and lifecycle cost of products are increasing concerns that need to be integrated into technical standards.

The main topics to be addressed are:

- **Compatibility of different elements** is crucial to ensure effectiveness of advanced, smart integrated protection systems. This includes compatibility of different system components and especially when ICT, other electronics and other advanced technologies are integrated in advanced PPE.
- **Ergonomics and comfort** are essential requirements for PPE to deliver the targeted level of safety and well-being in intended operating conditions. However, the assessment of such requirements relies on costly and frequently subjective testing methodologies; therefore, there is a need to explore and develop testing methods which are simple, objective and cost-effective. Virtual testing and simulation offer a potential yet under exploited in this area.

⁴ The task force report contains further details and is available at the website of the Commission: http://ec.europa.eu/enterprise/policies/innovation/policy/lead-market-initiative/files/pt_taskforce_report_en.pdf

⁵ http://ec.europa.eu/enterprise/policies/innovation/policy/lead-market-initiative/files/final-eval-lmi_en.pdf

- **Environmental sustainability and the total cost of ownership** (lifecycle cost approach) are increasingly drivers of innovation in private and public PPE markets. In this context, it is necessary to develop methodologies to assess the total cost of ownership (or lifecycle cost) as well as the environmental impact throughout the lifecycle of products, including recycling and end-of-life disposal. The total cost of ownership should take into account not only the costs and impacts linked to the product supply chain but also those related to services (care and maintenance) that are critical for preserving the functionalities and ensuring optimal performance.

Consequently and on the basis of Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services, the Commission is launching this mandate: to explore emerging standardisation needs in the field of protective textiles, clothing and equipment⁶; and to revise existing European standards and other standardisation deliverables as appropriate.

3. DESCRIPTION OF THE MANDATE

CEN, CENELEC and ETSI are invited to execute the following tasks, building on the activities of the CEN Personal Protective Equipment Sector Forum and on the results of LMI action plan (see footnotes 1 and 4) for the area of protective textiles, which was implemented between 2008 and 2011 with positive results.

This mandate complements other mandates related to relevant EU legislation on PPE (Directive 89/686/EEC). Where progress in this field should involve development of new harmonised standards or revision of existing harmonised standards under the Directive 89/686/EEC, such work should proceed according to existing mandates under the Directive 89/686/EEC.

3.1. Tasks

The tasks to be carried out are:

- Further explore and identify key recent technological developments for the deployment of smart integrated protection systems which integrate ICT, other electronics and other technologies in protective textiles, clothing and equipment.
- Identify cross-cutting barriers and drivers for the integration of technological developments resulting from R&D projects into new standards (or other standardisation deliverables). Among others, such barriers may include differing intellectual property right (IPR) management or protection of personal data.
- Explore existing standards in the field of ergonomics and comfort in order to identify whether recent technological developments and smart integrated protection systems would require further standardisation in this field.
- Explore existing methodologies to assess the overall lifecycle cost of protective textiles, clothing and equipment as well as the overall environmental impact in order to identify further standardisation needs.

⁶ The scope of the present mandate should be understood in a broad sense, covering uses that are excluded from the PPE Directive and covering not only protective clothing but also other types of PPE (see footnotes 2 and 3).

- Establish a programme of standardisation deliverables, including Technical Reports and Technical Specifications that could eventually lead to European Standards for the three areas:
 - 1 - Advanced integrated smart protection systems
 - 2 - User-driven ergonomics and comfort
 - 3 - Assessment of lifecycle cost and environmental impact

The programme should clearly identify the work items that are likely to involve the development or revision of harmonised standards supporting essential requirements of the Directive 89/686/EEC.

The programme should also identify and indicate any needs to develop new test methods, including needs for inter-laboratory trials.

3.2. Synergies and cooperation

CEN, CENELEC and ETSI are invited to take into account in particular ongoing pre- and co-normative research and development activities undertaken by relevant stakeholders, including EU funded projects (i.e. EU's Framework Programmes for Research Technological Development and Competitiveness and Innovation Framework Programme (CIP)).

The ongoing activities of the CEN Personal Protective Equipment Sector Forum should be considered as a starting point. Furthermore, multidisciplinary and cross-sectoral technological developments require increase coordination efforts beyond the traditional sectorial boundaries. CEN, CENELEC and ETSI are therefore requested to pay particular attention to co-ordinate activities and involve all relevant technical committees of CEN, CENELEC and ETSI.

Moreover, they should also establish and/or build upon existing appropriate links for the above described tasks with PPE users and public procurers as well as relevant European Technology Platforms, especially with Future of Textile and Clothing (FTC) and Industrial Safety (IS) to ensure coordinated and fast progress of their tasks.

European standardisation efforts should also be elaborated wherever possible in cooperation with the international standards bodies and take into account the ongoing activities in other parts of the world.

4. EXECUTION OF THE MANDATE

The Commission hereby asks CEN, CENELEC and ETSI to fulfil the tasks as described above, while taking into account the rationale of this mandate stated in the justification.

- The Commission invites CEN, CENELEC and ETSI to confirm whether they intend to accept the present mandate within 2 months after receiving this mandate.
- CEN, CENELEC and ETSI are asked to submit a work programme for deliverables in the area of protective textiles, clothing and equipment within 12 months after the acceptance of this mandate. A progress report is expected within 6 months after the acceptance of this mandate.

CEN, CENELEC and ETSI are required to keep close contacts with the Commission and to ensure that their activities are co-ordinated in a way to create a consistent and coherent framework at the international level, notably with regard to OECD activities.

5. BODIES TO BE ASSOCIATED

The execution of the mandate should be undertaken in cooperation with the widest possible range of interested groups: European Technology Platforms (see section 3), the European Agency for Safety and Health at Work (OSHA), research organisations and other stakeholders.

As appropriate, CEN will invite the standardisation stakeholders representing consumers' interests (ANEC), environmental protection (ECOS), workers (ETUI), SMEs (NormaPME), the European Federation of Textile and Clothing industry (Euratex), the European Safety Federation (ESF), the European Textile Service Association (ETSA) and others to take part in the development of the programme.